

Name: \_\_\_\_\_

**p1106: Solve by factoring (v2)**

1. Solve the equation

$$x^2 + 2x - 48 = 0$$

$$(x - 6)(x + 8) = 0$$

$$x = -8$$

$$x = 6$$

2. Solve the equation

$$x^2 + 5x + 6 = 0$$

$$(x + 2)(x + 3) = 0$$

$$x = -3$$

$$x = -2$$

3. Solve the equation

$$5x^2 + 8x + 57 = 4x^2 - 6x + 8$$

$$x^2 + 14x + 49 = 0$$

$$(x + 7)(x + 7) = 0$$

$$x = -7$$

$$x = -7$$

4. Solve the equation

$$7x^2 + 2x - 23 = 6x^2 - 2x - 2$$

$$x^2 + 4x - 21 = 0$$

$$(x - 3)(x + 7) = 0$$

$$x = -7$$

$$x = 3$$

5. Solve the equation

$$2x^2 - 8x + 17 = x^2 + 2x - 4$$

$$x^2 - 10x + 21 = 0$$

$$(x - 3)(x - 7) = 0$$

$$x = 7$$

$$x = 3$$

6. Solve the equation

$$7x^2 + 40x - 12 = 0$$

$$(7x - 2)(x + 6) = 0$$

$$x = -6$$

$$x = \frac{2}{7}$$

7. Solve the equation

$$11x^2 - 18x - 8 = 0$$

$$(11x + 4)(x - 2) = 0$$

$$x = 2$$

$$x = \frac{-4}{11}$$

8. Solve the equation

$$14x^2 - 28x + 3 = 3x^2 - 9x - 5$$

$$11x^2 - 19x + 8 = 0$$

$$(11x - 8)(x - 1) = 0$$

$$x = 1$$

$$x = \frac{8}{11}$$

9. Solve the equation

$$13x^2 - 62x - 87 = 6x^2 - 8x - 6$$

$$7x^2 - 54x - 81 = 0$$

$$(7x + 9)(x - 9) = 0$$

$$x = 9$$

$$x = \frac{-9}{7}$$

10. Solve the equation

$$13x^2 - 50x + 11 = 2x^2 - 3x - 1$$

$$11x^2 - 47x + 12 = 0$$

$$(11x - 3)(x - 4) = 0$$

$$x = 4$$

$$x = \frac{3}{11}$$